

CHAPTER

1

LAB DATASHEET



CHAPTER 1

Mysterious Minerals

Imagine sitting on a rocky hilltop, gazing at the ground below you. You can see dozens of different types of rocks. How can scientists possibly identify the countless variations? It's a mystery!

In this activity you'll use your powers of observation and a few simple tests to determine the identities of rocks and minerals. Take a look at the Mineral Identification Key on the last page of this lab. That key will help you use clues to discover the identity of several minerals.

MATERIALS

- several sample minerals
- glass microscope slides
- streak plate
- safety gloves
- iron filings

Procedure

1. Use the data chart on the next page to record your data in this lab. Choose one mineral sample and locate its column in the data chart. Follow the Mineral Identification Key on page 37 to find the identity of your sample. When you are finished, record the mineral's name and primary characteristics in the appropriate column in the chart. **Caution:** Put on your gloves when scratching the glass slide.
2. Select another mineral sample, and repeat the process until your data table is complete.

Analysis

3. Were some minerals easier to identify than others? Explain.

Yes, because some have very
distinct colors and others
identifying Properties, Because don't
streak or have the same color.

4. A streak test is a better indicator of a mineral's true color than visual observation is. Why isn't a streak test used to help identify every mineral?

It is not better because some
have the same color or don't even
have a streaks.

30/33

91%

Mysterious Minerals, continued

5. Summarize what you learned about the various characteristics of each mineral sample you identified.

I have learnt that the Streak is the true color of the mineral the outside color is not its true original color.

too short 3/5

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Mineral Summary Chart

Class number	#6	#9	#10	#1	#12	#7
Characteristics	1	2	3	4	5	6
Mineral name	Pyrite ✓	Hornblende ✓	Galena ✓	Garnet ✓	Idemite ✓	Muscovite ✓
Luster	metallic	glassy	metallic	glassy	metallic	glassy
Color	gold with gray	Black	black, silver	Dark Purple	gray	clear gray
Streak	gray	No streak	gray	No streak	red, brown	none
Hardness	we think it's 6	we think it's 5	we think it's 2	Think it's 2	Think it's 5	100
Cleavage	Fractured	Fractured	Fractured	yes	Fractured	yes
Special properties	none	none	None	Florescent	None	none